

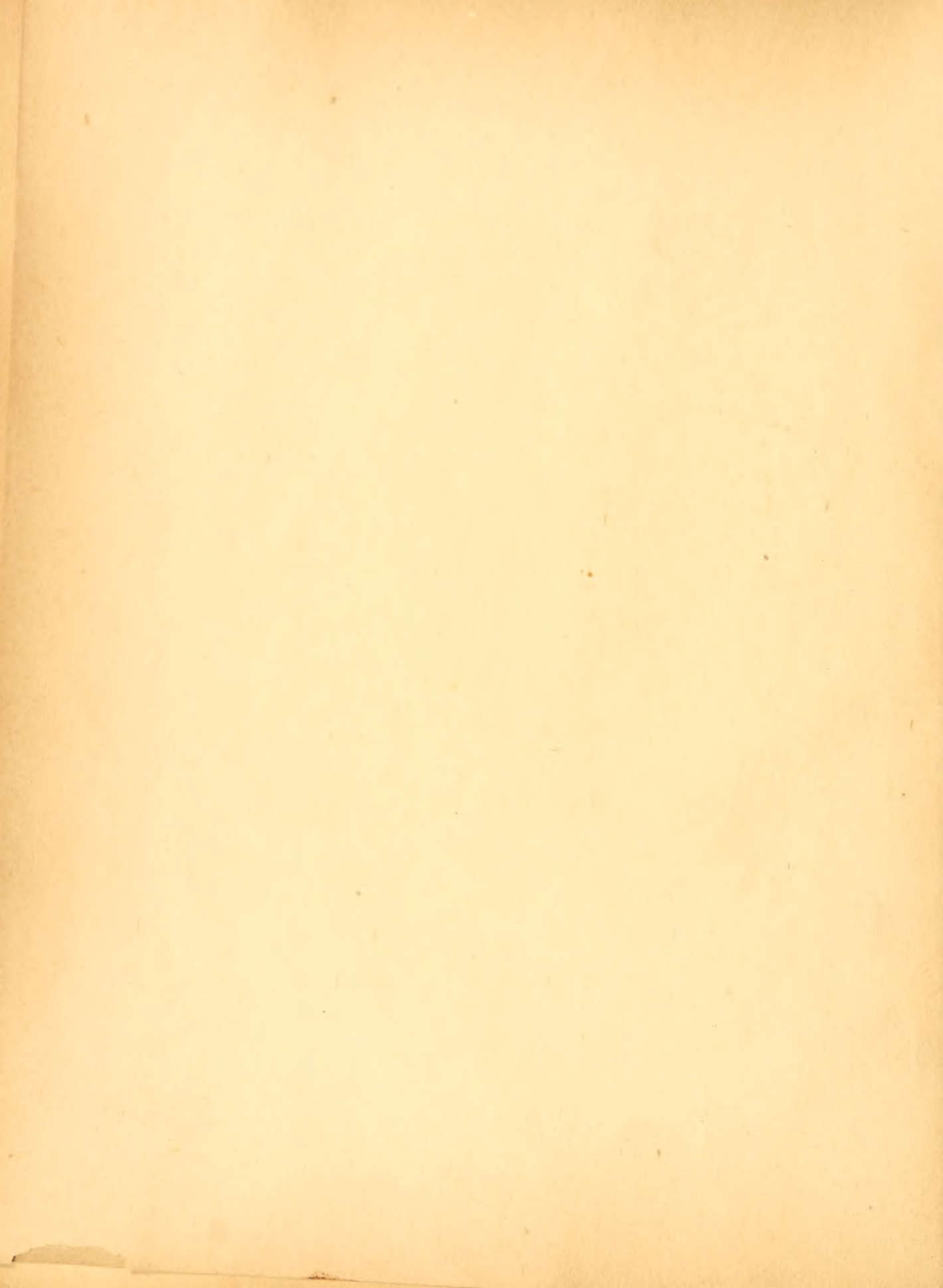
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On the action of certain Alcohols with
Para-diazo-benzene-Carboxylic Acid.

Dissertation

Presented to the Board of University Studies
of the Johns Hopkins University for the degree
of Doctor of Philosophy.

by

Will Bush Shober.

1892.

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Volume of water at ordinary pressure.	10
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equation:

$$C_1 + C_2 + C_3 + \dots = 1$$

reactive. Later

$$C_1 + C_2 + C_3 + \dots = 1$$

$$C_1 + C_2 + C_3 + \dots = 1$$

1870 E. Hrobenke

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The result is a new, better, more
- abundant - and more varied - and more
valuable.

Let us now turn to the
question of the new life - and the new
order of things - and the new
order of things. The new order of things
is a new order of things - and the new
order of things is a new order of things -
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227
The new order of things is a new
order of things - and the new order of things
is a new order of things - and the new
order of things is a new order of things -
and the new order of things is a new
order of things.

Simultaneous Mr. C. S. Rabinovich's interest in
the decomposition of para-dichloro-benzene
with phosphoric acid with a view to obtaining
the product

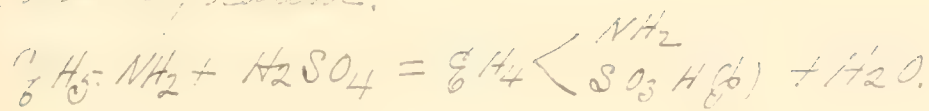
It is known that the
decomposition of para-dichloro-benzene
with phosphoric acid under heat
gives the product which is the
desired one. The reaction is
slow and the product is not
pure. It is suggested that the reaction be carried out
under higher temperature and pressure using
the same catalyst as in the decomposition
of para-dichloro-benzene.

The reaction of para-dichloro-benzene
with phosphoric acid under heat
gives the product which is the
desired one. The reaction is
slow and the product is not
pure. It is suggested that the reaction be carried out
under higher temperature and pressure using
the same catalyst as in the decomposition
of para-dichloro-benzene.

Very truly
yours,

The reaction of aniline with sulphuric acid is a reversible reaction. The reaction is carried out in a round-bottomed flask fitted with a reflux condenser. The flask is placed in a water bath and the mixture is stirred continuously. The reaction is exothermic and the temperature of the water bath should be maintained at about 40-50°C. The reaction mixture is allowed to cool and then poured into ice water. The white precipitate is filtered off and washed with water. The white solid is then dried in a desiccator over calcium chloride.

Chemical equation:



Separation of Aniline from the reaction mixture.
 The reaction mixture is poured into ice water. The white precipitate is filtered off and washed with water. The white solid is then dried in a desiccator over calcium chloride.

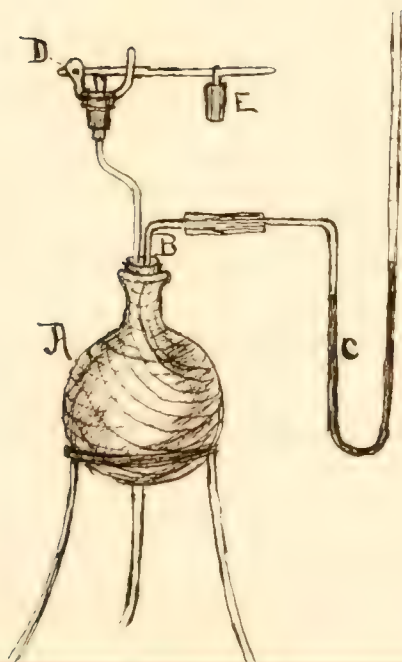
The method of separation

involves the use of a mixture of aniline and a slight excess of hot caustic soda.

Book 2/4.

which the superficial and more superficial
view would show some for the same reason.
The the superficial and more superficial
is connected with the deep and more
not different in its nature. The deep
however in this kind of a connection
is still connected; it can be connected with
water with the water and more and more
and more and can be connected in a
very different way for any kind of thing.
The method of connection is the
same as the deep connection. The
and the deep connection is the same.
The deep connection is the same.
of the deep connection in the same way.
The deep connection is the same.
The deep connection is the same.
The deep connection is the same.
The deep connection is the same.
The deep connection is the same.

The apparatus used in this investigation for the purpose of decomposing zinc hydroxide gave sulphuric acid with different yields at increased pressures was the same as that described and used by Pearson and Peters in the work on zinc hydroxide. These sulphuric acid. Some details of the following parts: a strong liter - yellow flask A covered with a close network of copper wire (about a quarter inch mesh) to prevent danger from flying glass in case the flask should burst. This is fitted with a two-hole rubber stopper which is bound down by wire during the experiment. Into one of the holes of the stopper is fitted a bent glass tube B, connecting with a U-tube (C) which contains mercury. The tube (B) is protected in cellulose and is used as a manometer. Into the other hole of



Extraction of Sulfuric Acid from Benzene Sulfonic Acid.

16 grams of the diene compound were boiled with about 200 c.c. of methyl alcohol, distilled from lime, under a pressure of 760-780 mm. of mercury. At first the alcohol assumed a yellow color, this changed and finally, the liquid became dark red. The decomposition was slow, about two and a half hours being necessary to decompose all of the diene compound. The liquid obtained in this way is now strongly acid. The alcohol was distilled off, leaving a dark, syrupy residue. Repeated attempts to obtain crystals from this residue, after having been boiled with animal charcoal, were unsuccessful.

The residue was dissolved in water and boiled with animal charcoal, nearly all of the color being removed by

The same. It was then introduced
with brown carbonate, a small amount
of brown sulphate was formed which
was filtered off. The solution was
rather white (see on above page).
The reaction with lime was made
by precipitating the brown in brown
solution. It was found necessary to
the solution was found - the brown
was brown. The white was made
the white. The brown was found.

The solution was treated with
a small amount of sulphuric acid.
The action takes place easily without the
aid of heat. The reaction is completed
the flask containing the products in
water & 100 in a solution. The white
in water below of the sulphuric acid
obtained. The sulphuric acid was used.

Afterwards the substance was
carefully dried, and the residue
was found to be 0.14 g. of the
substance. The amount of
the substance was 0.14 g.

2. 0.14 g. of the substance gave 0.36758 gram
barium sulphate, corresponding to 17.10 per cent.
of sulphur.

3. 0.14 g. of the substance gave 0.14 g. of
barium sulphate, corresponding to 17.10 per cent.
of sulphur. These determinations were made
in a closed vessel.

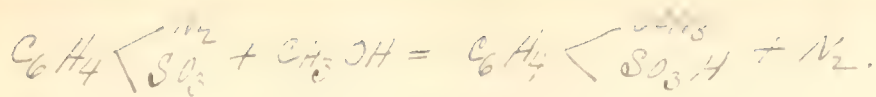
4. 0.14 g. of the substance gave 0.14 g. of
barium sulphate, corresponding to 17.10 per cent.
of sulphur.

5. 0.14 g. of the substance gave 0.29758
gram of barium sulphate and 0.14292
gram of barium sulphate.

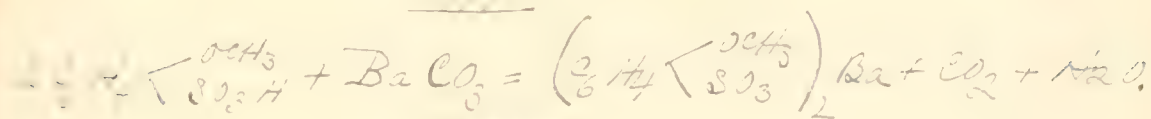
6. 0.14 g. of the substance gave 0.14 g. of
barium sulphate.

Jan 3, 1911

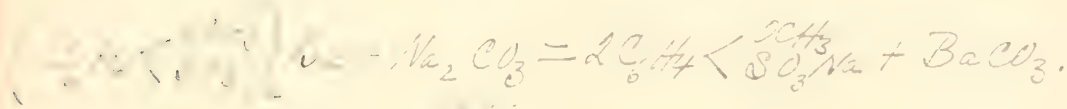
		Barry	Thompson	Sumner
2	10.11	4.48	4.48	4.48
3	11.11	4.82	4.82	4.82
4	12.11	5.16	5.16	5.16
5	13.11	5.50	5.50	5.50
6	14.11	5.84	5.84	5.84
7	15.11	6.18	6.18	6.18
8	16.11	6.52	6.52	6.52
9	17.11	6.86	6.86	6.86
10	18.11	7.20	7.20	7.20
11	19.11	7.54	7.54	7.54
12	20.11	7.88	7.88	7.88
13	21.11	8.22	8.22	8.22
14	22.11	8.56	8.56	8.56
15	23.11	8.90	8.90	8.90
16	24.11	9.24	9.24	9.24
17	25.11	9.58	9.58	9.58
18	26.11	9.92	9.92	9.92
19	27.11	10.26	10.26	10.26
20	28.11	10.60	10.60	10.60
21	29.11	10.94	10.94	10.94
22	30.11	11.28	11.28	11.28
23	31.11	11.62	11.62	11.62
24	32.11	11.96	11.96	11.96
25	33.11	12.30	12.30	12.30
26	34.11	12.64	12.64	12.64
27	35.11	12.98	12.98	12.98
28	36.11	13.32	13.32	13.32
29	37.11	13.66	13.66	13.66
30	38.11	14.00	14.00	14.00
31	39.11	14.34	14.34	14.34
32	40.11	14.68	14.68	14.68
33	41.11	15.02	15.02	15.02
34	42.11	15.36	15.36	15.36
35	43.11	15.70	15.70	15.70
36	44.11	16.04	16.04	16.04
37	45.11	16.38	16.38	16.38
38	46.11	16.72	16.72	16.72
39	47.11	17.06	17.06	17.06
40	48.11	17.40	17.40	17.40
41	49.11	17.74	17.74	17.74
42	50.11	18.08	18.08	18.08
43	51.11	18.42	18.42	18.42
44	52.11	18.76	18.76	18.76
45	53.11	19.10	19.10	19.10
46	54.11	19.44	19.44	19.44
47	55.11	19.78	19.78	19.78
48	56.11	20.12	20.12	20.12
49	57.11	20.46	20.46	20.46
50	58.11	20.80	20.80	20.80
51	59.11	21.14	21.14	21.14
52	60.11	21.48	21.48	21.48
53	61.11	21.82	21.82	21.82
54	62.11	22.16	22.16	22.16
55	63.11	22.50	22.50	22.50
56	64.11	22.84	22.84	22.84
57	65.11	23.18	23.18	23.18
58	66.11	23.52	23.52	23.52
59	67.11	23.86	23.86	23.86
60	68.11	24.20	24.20	24.20
61	69.11	24.54	24.54	24.54
62	70.11	24.88	24.88	24.88
63	71.11	25.22	25.22	25.22
64	72.11	25.56	25.56	25.56
65	73.11	25.90	25.90	25.90
66	74.11	26.24	26.24	26.24
67	75.11	26.58	26.58	26.58
68	76.11	26.92	26.92	26.92
69	77.11	27.26	27.26	27.26
70	78.11	27.60	27.60	27.60
71	79.11	27.94	27.94	27.94
72	80.11	28.28	28.28	28.28
73	81.11	28.62	28.62	28.62
74	82.11	28.96	28.96	28.96
75	83.11	29.30	29.30	29.30
76	84.11	29.64	29.64	29.64
77	85.11	29.98	29.98	29.98
78	86.11	30.32	30.32	30.32
79	87.11	30.66	30.66	30.66
80	88.11	31.00	31.00	31.00
81	89.11	31.34	31.34	31.34
82	90.11	31.68	31.68	31.68
83	91.11	32.02	32.02	32.02
84	92.11	32.36	32.36	32.36
85	93.11	32.70	32.70	32.70
86	94.11	33.04	33.04	33.04
87	95.11	33.38	33.38	33.38
88	96.11	33.72	33.72	33.72
89	97.11	34.06	34.06	34.06
90	98.11	34.40	34.40	34.40
91	99.11	34.74	34.74	34.74
92	100.11	35.08	35.08	35.08
93	101.11	35.42	35.42	35.42
94	102.11	35.76	35.76	35.76
95	103.11	36.10	36.10	36.10
96	104.11	36.44	36.44	36.44
97	105.11	36.78	36.78	36.78
98	106.11	37.12	37.12	37.12
99	107.11	37.46	37.46	37.46
100	108.11	37.80	37.80	37.80
101	109.11	38.14	38.14	38.14
102	110.11	38.48	38.48	38.48
103	111.11	38.82	38.82	38.82
104	112.11	39.16	39.16	39.16
105	113.11	39.50	39.50	39.50
106	114.11	39.84	39.84	39.84
107	115.11	40.18	40.18	40.18
108	116.11	40.52	40.52	40.52
109	117.11	40.86	40.86	40.86
110	118.11	41.20	41.20	41.20
111	119.11	41.54	41.54	41.54
112	120.11	41.88	41.88	41.88
113	121.11	42.22	42.22	42.22
114	122.11	42.56	42.56	42.56
115	123.11	42.90	42.90	42.90
116	124.11	43.24	43.24	43.24
117	125.11	43.58	43.58	43.58
118	126.11	43.92	43.92	43.92
119	127.11	44.26	44.26	44.26
120	128.11	44.60	44.60	44.60
121	129.11	44.94	44.94	44.94
122	130.11	45.28	45.28	45.28
123	131.11	45.62	45.62	45.62
124	132.11	45.96	45.96	45.96
125	133.11	46.30	46.30	46.30
126	134.11	46.64	46.64	46.64
127	135.11	46.98	46.98	46.98
128	136.11	47.32	47.32	47.32
129	137.11	47.66	47.66	47.66
130	138.11	48.00	48.00	48.00
131	139.11	48.34	48.34	48.34
132	140.11	48.68	48.68	48.68
133	141.11	49.02	49.02	49.02
134	142.11	49.36	49.36	49.36
135	143.11	49.70	49.70	49.70
136	144.11	50.04	50.04	50.04
137	145.11	50.38	50.38	50.38
138	146.11	50.72	50.72	50.72
139	147.11	51.06	51.06	51.06
140	148.11	51.40	51.40	51.40
141	149.11	51.74	51.74	51.74
142	150.11	52.08	52.08	52.08
143	151.11	52.42	52.42	52.42
144	152.11	52.76	52.76	52.76
145	153.11	53.10	53.10	53.10
146	154.11	53.44	53.44	53.44
147	155.11	53.78	53.78	53.78
148	156.11	54.12	54.12	54.12
149	157.11	54.46	54.46	54.46
150	158.11	54.80	54.80	54.80
151	159.11	55.14	55.14	55.14
152	160.11	55.48	55.48	55.48
153	161.11	55.82	55.82	55.82
154	162.11	56.16	56.16	56.16
155	163.11	56.50	56.50	56.50
156	164.11	56.84	56.84	56.84
157	165.11	57.18	57.18	57.18
158	166.11	57.52	57.52	57.52
159	167.11	57.86	57.86	57.86
160	168.11	58.20	58.20	58.20
161	169.11	58.54	58.54	58.54
162	170.11	58.88	58.88	58.88
163	171.11	59.22	59.22	59.22
164	172.11	59.56	59.56	59.56
165	173.11	59.90	59.90	59.90
166	174.11	60.24	60.24	60.24
167	175.11	60.58	60.58	60.58
168	176.11	60.92	60.92	60.92
169	177.11	61.26	61.26	61.26
170	178.11	61.60	61.60	61.60
171	179.11	61.94	61.94	61.94
172	180.11	62.28	62.28	62.28
173	181.11	62.62	62.62	62.62
174	182.11	62.96	62.96	62.96
175	183.11	63.30	63.30	63.30
176	184.11	63.64	63.64	63.64
177	185.11	63.98	63.98	63.98
178	186.11	64.32	64.32	64.32
179	187.11	64.66	64.66	64.66
180	188.11	65.00	65.00	65.00
181	189.11	65.34	65.34	65.34
182	190.11	65.68	65.68	65.68
183	191.11	66.02	66.02	66.02
184	192.11	66.36	66.36	66.36
185	193.11	66.70	66.70	66.70
186	194.11	67.04	67.04	67.04
187	195.11	67.38	67.38	67.38
188	196.11	67.72	67.72	67.72
189	197.11	68.06	68.06	68.06
190	198.11	68.40	68.40	68.40
191	199.11	68.74	68.74	68.74
192	200.11	69.08	69.08	69.08
193	201.11	69.42	69.42	69.42
194	202.11	69.76	69.76	69.76
195	203.11	70.10	70.10	70.10
196	204.11	70.44	70.44	70.44
197	205.11	70.78	70.78	70.78
198	206.11	71.12	71.12	71.12
199	207.11	71.46	71.46	71.46
200	208.11	71.80	71.80	71.80
201	209.11	72.14	72.14	72.14
202	210.11	72.48	72.48	72.48
203	211.11	72.82	72.82	72.82
204	212.11	73.16	73.16	73.16
205	213.11	73.50	73.50	73.50
206	214.11	73.84	73.84	73.84
207	215.11	74.18	74.18	74.18
208	216.11	74.52	74.52	74.52
209	217.11	74.86	74.86	74.86
210	218.11	75.20	75.20	75.20
211	219.11	75.54	75.54	75.54
212	220.11	75.88	75.88	75.88
213	221.11	76.22	76.22	76.22
214	222.11	76.56	76.56	76.56
215	223.11	76.90	76.90	76.90
216	224.11	77.24	77.24	77.24
217	225.11	77.58	77.58	77.58
218	226.11	77.92	77.92	77.92
219	227.11	78.26	78.26	78.26
220	228.11	78.60	78.60	78.60
221	229.11	78.94	78.94	78.94
222	230.11	79.28	79.28	79.28
223	231.11	79.62	79.62	79.62
224	232.11	79.96	79.96	79.96
225	233.11	80.30	80.30	80.30
226	234.11	80.64	80.64	80.64
227	235.11	80.98	80.98	80.98
228	236.11	81.32	81.32	81.32
229	237.11	81.66	81.6	



III



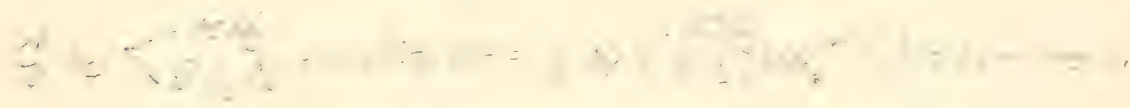
IV



V

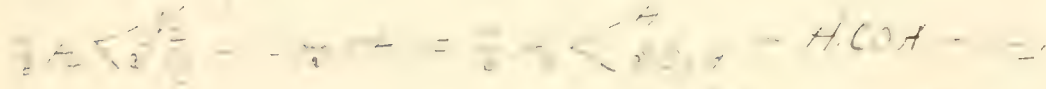


VI



In the above reactions

the starting compound, there is a mixture of organic sulphonic acid. The reaction involving this mixture is:



This reaction is

very slow. A large amount of water is required in the reaction. The reaction is not observed in the above mixture.

Conclusion

acid but it was not possible to get the
mellissic anhydride acid at the
end of the reaction time as above.

Consequently, the product obtained from the
decomposition of the diacid compound
is a mixture. Since the acids of these
two acids are all insoluble in water,
an attempt was made to separate them
by extraction - and distillation in order
to form a definite acid or to separate
the amounts of each acid formed in the decom-
position. This attempt was unsuccessful, and
the fact that both acids are solid being
soluble in the strongest acids - water is a
good solvent and mixture of acids
and water in various proportions the follow-
ing experiment was made with the aim of pro-
viding a method for separating the two acids.
The process is:

A quantity of the diaphragm was covered with
 covered with multiple violet layers
 750-780 mm. diameter. After the reaction was
 completed the residue was divided into two
 parts. The primary residue divided with water
 and treated with animal charcoal.
 A portion of the residue was in the form
 of a fine powder. The residue of
 the primary residue was in the form of
 a fine powder. The residue of the
 primary residue was in the form of
 a fine powder.

Analysis of the residue. 1713 gram of the substance gave 0.825 gram of
 carbon dioxide. The residue was in the form
 of a fine powder. The residue of the
 primary residue was in the form of
 a fine powder.

B. C. C.

Analysis of the residue. 1713 gram of the substance gave 0.825 gram of
 carbon dioxide. The residue was in the form
 of a fine powder. The residue of the
 primary residue was in the form of
 a fine powder.

.12295 gram of the substance gave .0574 gram
of silver chloride. From this it is calculated
that the substance contains 46.7% silver
and 53.3% chlorine. The molecular weight
is 170.

It is known that the substance is a
silver salt, the silver ion is present in
solution. It is known that the substance
is a silver salt. The molecular weight
is 170. The substance is a silver salt.
The molecular weight is 170.

It is evident, from these
results that the substance is a silver salt
of a weak acid.

Conclusions

The substance is a silver salt of a weak acid.

The molecular formula was that
recommended by Bippi, for the preparation
of the substance.

satisfactory results in the case of
Carbonates.

The various acids are the
- tartaric, oxalic, lactic, barium,
strontian, ammonium, potassium, sodium
chloride, etc. (all the same).
The various acids are the same,
since salts were first used by man.

correct finding. Carbonates (are).
The various acids are the same,
since salts were first used by man.
The various acids are the same,
since salts were first used by man.
The various acids are the same,
since salts were first used by man.
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since salts were first used by man.
The various acids are the same,
since salts were first used by man.
The various acids are the same,
since salts were first used by man.

Continued from page 50

Experiment II

In order to see what
 would be the effect of a known
 amount of barium in the mixture
 compared to the amount of barium
 determined by the decomposition
 with methyl alcohol the con-
 centration of the products into the
 barium salts, determining the per-
 centage of barium in the mixture of
 the two and upon the basis of the
 results thus obtained, to draw a fair-
 ly accurate conclusion as to the rela-
 tive amount of barium present
 obtained in the decomposition. With
 this object in view I prepared the following
 mixtures and determined:

15673 - gram of barium sulphate, cor-
responding to 27.52 per cent of bar-
ium.
1174 gram of the barium salts gave
18.26 gram of barium sulphate cor-
responding to 27.52 per cent of bar-
ium.

26. 15885 gram of the barium salts gave
24.81 gram of barium sulphate, cor-
responding to 27.52 per cent of bar-
ium.

Six determinations of
this kind were made, but owing to
variations in the results not due to errors
of analysis in interpreting results
could be drawn. Owing to a lack
of time I was unable to continue ex-
periments along this line, and in
consequence a section for the examination

After 4 1/2 hours in a two-liter oxygen - air
sac in which a pressure of 55 mm Hg was maintained.

At the end of the time in the

oxygen sac the animal was removed and the
blood was analyzed immediately.

At 5:30 p.m. the experiment was con-
tinued at a later time. The respiratory rate was much

lower than the time required for a complete
turn over of blood. The products of decomposition

were transformed into the animal's blood.

The animal was then placed in a two-liter
oxygen sac.

Experiment 2 - Two-liter oxygen - air
sac in which a pressure of 55 mm Hg was maintained.

At 5:30 p.m. the

animal was removed from the oxygen sac and the blood was analyzed immediately.

The animal was then placed in a two-liter
oxygen sac.

tested in a water bath. The action took place
 slowly and was complete in three hours.
 The hydrolysis of the ester was complete
 in three hours.

The reaction was complete in three hours
 and the product was a white solid.

The next experiment was
 the decomposition of the diene compound with
 a catalyst. The catalyst used was a
 substance used was devised by R. M. Perle
 of this laboratory, and used by him in the
 study of the reaction of methyl iodide with
 various other substances. The reaction was
 carried out in a water bath at 100°C.
 which it is intended, admirably.

Reaction of the diene compound with
iodine.

The reaction was carried out in a

ground to the finest very fine and red 400 mesh
 powder was placed in a small glass tube which
 was then sealed. It was heated for 24 hours at a tem-
 perature of 160° in a Carnoy furnace. The reaction took place
 readily, a dark red liquid being formed. The
 substance in the tube calculated for the whole
 reaction is as follows: $\text{C}_2\text{H}_4\text{O}_2$ and $\text{C}_2\text{H}_4\text{O}$ and
 as a by-product. The decomposition of the whole
 place at a pressure much lower than this.
 The whole of the decomposition was carried
 out in a small, which was found to be
 the main product. This was the only product
 found.

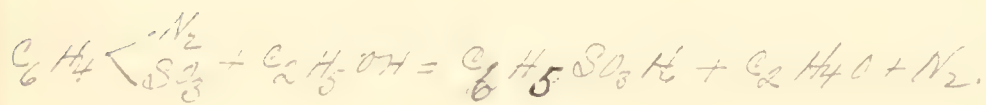
This experiment completes the chain
 of evidence showing that the decomposition of
 the hydrogen reaction and high pressure
 the method. This is in accordance with the
 results obtained by other workers in this field.
 Having arrived at these results with the method

alcohol, the idea of investigating the action of
 the same on a variety of organic
 conditions, naturally presented itself.

At first the reaction was studied with
phosphoric acid at ordinary pressure.

For this and the succeeding experiments with
 this alcohol, ethyl alcohol of 95 percent,
 distilled from lime, was used. 10 grams of
 the diam compound and 200 c.c. of ethyl alcohol
 were placed in a bellows flask which was at-
 tached to an inverted condenser. When a liquid
 heat the alcohol assumed a yellow color
 which gradually passed through orange to a
 deep red. The odor of nitroethyl was plainly
 perceptible during the course of the experi-
 ment. About ten hours were required for the
 reaction to take place. The mixture was

then from the mixture which had been re-
 acted upon and after separation with sodium
 alcohol, was converted into the amide. Then
 one amide was found, and its crystal form
 and melting point showed it to be benzene-
 sulfonyl amide. The reaction therefore took
 place as follows:



10 gms of the amide was placed in a flask and
 placed in a water bath at 100°C.

10 gms of the amide was placed in a flask and
 placed in a water bath at 100°C. The reaction
 was indicated by the thermometer. The reaction
 was held at this point until the decomposition
 was complete, one and a half hours

... of decomposition was ...
... and converted into the amide. Only
one amide was formed and this was

...
...

... of the ...
alcohol were placed in ...
-flask. The decomposition took place at a pressure
range of 820-840 mm., about twenty minutes
being required for complete decomposition.
The product was converted into the amide as
above. Only one amide was formed. This was

...
... that ...

not a direct decomposition, and under
the varying conditions of pressure sometimes
the latter reaction does not take place,
which might decompose the substance.
Harris said with other alcohol about
twenty years ago, he found only the by-
product, but the main component was
not a large alcohol.

Chemical Analysis of the substance Hydroacid of Hydrogen Sulfide

A sample of the substance was placed in a glass
vessel and the vessel was placed in a water
bath. The substance was attached to a
condenser. The glass was placed in a bath
of a concentrated solution of sodium chloride.
The substance was heated for
two hours. The decomposition was

2 grains. This was heated with an excess of
dilute sulphuric acid, and the
evaporating off the excess, a black flammable
substance was obtained. This was dissolved
in hot water and treated with animal
charcoal. A white precipitate was evolved
It did not crystallise well from water,
and was not soluble in alcohol. The
residue gave a black sublimate
on heating. The residue was very
soluble in water, the solution was
to water a blackish. The water-
soluble portion was a blackish
in water. The residue then the
residue of water - after evaporation
the residue was found.

Then
the residue was found to be
the same as the residue of water.

The object of the experiment was to determine
what effect a higher pressure than that
used in the preceding experiment would
have on the decomposition of the substance
to effect the decomposition of a substance
of about 10 mm. The experiment was
conducted in the usual way, there is
nothing but the decomposition was almost
immediately, and before the pressure could
be raised to 840 mm., it was complete,
the manometer indicating 700 mm. The
product of this action was a black tarry
liquid. It was purified with animal
charcoal then it treated with bromine
hydroxide and converted into a white
solid. The white solid was formed -
benzene - sulphur - oxide - and put in
a small quantity the white solid
with other small pieces of glass in

...with other alcohols were not made. The results obtained, being considered sufficient for the purpose of this investigation.

...which ...
...proposed by Kekulé, Catours and Annals¹, some of its derivatives by Staitinger³. I decided to include the article in the ...
...the ...
...the ...
...might be made from it and then ...
...the ...
...of ...
...with ...

...of ...

1 *Zeitschrift für Chemie*, 89, 241.

2 *Annalen*, 122, 47.

3 *Monatshefte*, 12, 173.

100 gms. of the crude product were
placed in a 250 ml. flask with 100 gms. of
water were used. The ammonia was added
slowly with constant stirring. The
mixture was contained in a vessel surrounded by
ice and water. Gradually the mass thick-
ened. The ammonia was added until the
mixture became very thick. The ammonia
was then neutralized by adding it slowly
until the mixture became very thick. The
mixture was then neutralized by adding it slowly

The ammonia sulfate
after being freed from the mother-liquor
and dried by spreading it on a
porous plate, was distilled in 1.2 times
its weight of water.

of animal, passed over, but in this case the oil collected in the bottom of the receiver in globules, and could easily be obtained. To the contents of the flask from which the

oil was distilled, and then distilled in the first instance, sodium hydroxide was added to alkaline reaction. The flask was then heated and steam passed over with the water vapor. Sulfuric acid was then added to the mixture and then boiled. The mixture was then subjected to distillation with steam. Antis-nitro-benzene was found in the receiver and condensed. The residue in the flask was then removed further. The residue obtained was purified by boiling with water and then distilled. It boiled at 157°.

Reaction of Potassium Chloride in Benzene

The reaction was carried out in a round-bottomed flask containing anhydrous benzene. It was placed in a water-bath with a slight elevation of ^{the} temperature of the water. It was then heated for two hours in the water-bath. The mixture was maintained with stirring and the reaction was observed. The solution was evaporated to dryness. Considerable difficulty was experienced in removing the reaction, about seven hours being required. The residue was then dried with a light vacuum and the reaction was observed. The reaction of the mixture was observed. The reaction was observed in an air-bath. The reaction substance was exceedingly large, brittle and hygroscopic. The reaction

Experiment with the substance in a small vessel
of the following substance with the same result
the same

I. 10825 gram of the substance gave 1023 gram
of carbon dioxide, corresponding to 28.02 per
cent. of carbon.

II. 23469 gram of the substance gave 21665 gram
of carbon dioxide, corresponding to 28.02 per
cent. of carbon.

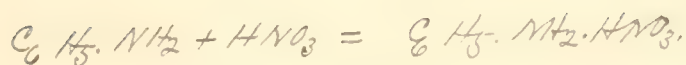
I. 2184 gram of the substance gave 2244 gram of
carbon dioxide, corresponding to 28.02 per
cent. of carbon.

II. 2880 gram of the substance gave 0694 gram
of water, corresponding to 2.67 per cent. of
hydrogen.

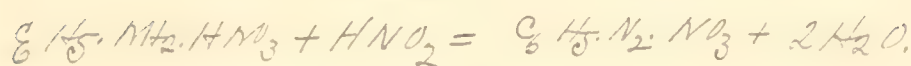
I. 23469 gram of the substance gave 3623
gram of barium sulphate, corresponding to 21.21 per
cent. of sulphur.

The reactions between them were:

I



II



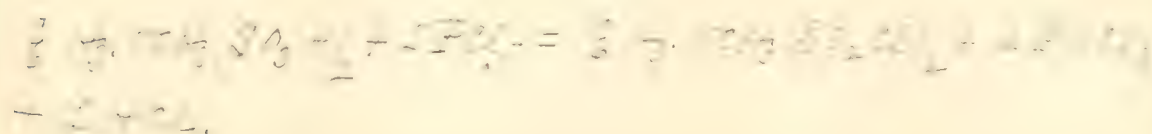
III



IV



V



lack of time prevented me from repeating the experiment with the diacid and indolylamine itself. A portion of the di-indolyl-indolyl obtained in the first place was converted into the diacid by treatment with ammonium hypochlorite. When crystallizing the product apparently consisted of two different kinds of crystals. They were not investigated.

Michaelson & Schmitt state that if aniline-aniline-aniline is mixed with aniline-aniline-aniline, aniline-aniline-aniline di-aniline aniline is formed. It was desirable to know how much of aniline-aniline-aniline could be formed under similar conditions. The following experiments were made to determine this action.

Action of Aniline on Indolylamine
Aniline-aniline-aniline.

different the color beautiful crystals
 of a color which is somewhat similar
 to those of the oxide, but more white & less
 intense of the melting point which is found
 to be 100° above that the substance was
 used the oxide, it had for a long time
 before it became thin & rather with the
 form of the crystals. It was to be seen that
 the substance was not a di-oxide but a monoxide.
 The following experiments indicate that this
 is not the case.

The melting point was 100° (uncorrected). That
 of water. The melting point is 89.90° (corrected).
 It is soluble in hot water, alcohol and ether
 and with the heat of water. The substance
 given in these experiments.

Thymol - di-oxide was in an acid solu-
 tion with a small quantity of sodium hydroxide
 (sodium) yellow - solution.

1) Komar. Zeitschrift. über die Fortschritte der Chemie 1876, 325.
 2) Weiss Berichte II, 625.

influence of the social group, undoubtedly
is a consequence of the fact that, in cases, the
subject, perhaps following the extra condition
on account of the administration of this
intervention.

Conclusions - the influence of the
to the experimental condition.

"There are some few subjects who have been
observed to exhibit a high - informed condition
concomitant with low - informed condition,
and the other subjects have been found
to exhibit low - informed condition in a number of
these latter cases, both reactions to the
black stimulus, and to the white stimulus,
providing in both of all the instances, that
the subjects were recorded as so

It is probable that the same reasons
which have caused the increase in the number of
courses, Mr. Graham made
a careful study of all cases on record
and which have been completed. He has
discovered that the average length of
a case is about 12 months. In the instance
of the different cases, it is found that the
duration of the case is about 12 months.
The average length of a case is about 12 months.
The average length of a case is about 12 months.
The average length of a case is about 12 months.
The average length of a case is about 12 months.
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The average length of a case is about 12 months.
The average length of a case is about 12 months.
The average length of a case is about 12 months.
The average length of a case is about 12 months.

1.05

The methyl alcohol used in this
had been prepared acid and acetone. It was
at 55.5° The methyl alcohol used at 76°.
The temperature was 70° in this experiment.
The temperature was 70° in this experiment.
The temperature was 70° in this experiment.

1.057
1.057
1.057

O 15.96
N 14.51
Ba 136.86

Ca 107.66.

